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FACTS ABOUT ALCOHOL

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The drug ethyl alcohol or ethanol is the alcohol people drink. Alcohol can be made synthetically or produced naturally by fermentation of fruits, vegetables, or grains. In Ontario, most beer contains 5% alcohol and most table wines 10-14%. Fortified wines such as sherry, port, and vermouth contain 16-20% alcohol. Distilled spirits—whiskey, rum, gin, etc.—contain approximately 40% alcohol. (These are percentages by volume; corresponding percentages by weight are one-fifth less.)

A 12 oz (340.8 mL) bottle of beer contains the same amount of alcohol as a drink containing 1½ oz (42.6 mL) of spirits, a 5 oz (142 mL) glass of table wine, or a 3 oz (85.2 mL) glass of fortified wine.

EFFECTS

As with any drug, the effects of alcohol depend on the amount taken at one time, the previous experience of the user—e.g. the drinker's tolerance to alcohol—and the circumstances in which the alcohol is taken: the place, the feelings and activities of the user, the other people present.

Short-term effects are those which appear rapidly after alcohol is taken and disappear after a few hours or a day.

- a) Alcohol decreases the activity of parts of the brain and the rest of the central nervous system (CNS) in proportion to the amount of alcohol in the bloodstream. The drinker's blood alcohol level (BAL) depends in general on the amount consumed, the rate of drinking, the amount and kind of food in the stomach, and the drinker's size and body build. For example, a 220 lb (100 kg) man would have a lower BAL than a 154 lb (70 kg) man if they both consumed the same amount of alcohol and if both have the same proportions of lean and fat in their bodies. Similarly, a 150 lb

(68 kg) woman would have a lower BAL than a 120 lb (54 kg) woman under the same conditions.

- b) When an average-sized man (154 lb/70 kg), with moderate drinking experience, has the equivalent of three or four drinks in his body, he can become flushed and dizzy, lose some coordination, and react slowly. The same sized man with six to eight drinks in the body will tend to stagger, have double vision, numbing of the senses, and stupor. For a woman of 120 lb (54 kg), the equivalent amounts would be two to three drinks and four to six drinks respectively. Though extremely large doses of alcohol can kill by knocking out the brain's control over breathing, this rarely happens because a person usually passes out before a lethal dose can be taken. The lethal BAL for humans is about 0.5% or six times the legal drinking-driving limit.
- c) Drinking heavily over a short period may produce a hangover (headache, nausea, shakiness, and possibly vomiting) the next day. A hangover is the body's reaction to too much alcohol; in part it is related to alcohol poisoning, and in part it is the body's reaction to withdrawing from alcohol.

Combining alcohol with antihistamines (cold and allergy remedies), marijuana, tranquilizers, barbiturates, or other "sleeping" pills can be dangerous. Alcohol can intensify the effects of these drugs and vice versa. The use of alcohol only or alcohol in combination with any of the above drugs, impairs one's ability to drive an automobile, operate machinery, and perform other related activities. Many accidental deaths have been attributed to the combination of alcohol and barbiturates.

Long-term effects are those provoked by repeated use of alcohol over long periods of time.

- a) As people continue to drink, their tolerance for alcohol increases. This means they must increase their intake of alcohol to get the original effect.
- b) Because tolerance develops, many alcohol-dependent people drink steadily throughout the day but seldom seem to be intoxicated. These people may work reasonably well. Their condition may go unacknowledged until severe physical damage develops, or until they get sick and, confined to bed or in a hospital, experience alcohol withdrawal symptoms.
- c) Many heavy drinkers suffer loss of appetite, vitamin deficiencies, stomach inflammation, infections, skin problems, and sexual impotence. Some also develop inflammation of the nerves, liver damage, brain damage, and disorders of the heart and blood vessels. In severe cases, there may be confusion and/or loss of memory and blackouts. The loss of memory can be permanent.
- d) The risk of serious disease increases with the amount of alcohol consumed. For example, drinkers who consume 20 to 30 bottles

of beer or 30 to 45 oz (852 to 1,278 mL) of whiskey each week over a number of years, have a greater likelihood of developing cirrhosis of the liver or certain types of cancer. The danger to health increases rapidly when larger amounts are consumed. In the case of the cancers, the risk is even greater when drinking is combined with smoking.

- e) Rates of death are much higher for heavy drinkers than for light drinkers or abstainers, particularly from diseases of the heart and liver, pneumonia, cancer of the lung, throat, gullet, and mouth, acute alcohol poisoning, accidents, and suicide.
- f) The consistently heavy drinker becomes physically and psychologically dependent on alcohol over a long period of time. Physical and psychological dependence also occur in the taking of other drugs. Physical dependence occurs when body tissues have adapted themselves to alcohol in order to function "normally." People who are physically dependent on alcohol will have symptoms ranging from jumpiness to tremors, convulsions, and hallucinations when they stop drinking. Psychological dependence occurs when alcohol becomes so central to a person's thoughts, emotions, and activities that it is extremely difficult to stop using it.

WHO USES ALCOHOL?

Two surveys were conducted in 1977 by the Addiction Research Foundation. In the Ontario household study of people aged 18 and over, 82.1% had consumed alcohol in the preceding year. The study of Ontario students, aged 18 or over, showed that 94.8% had used alcohol during the previous year.

WHY DO PEOPLE USE ALCOHOL?

Socially, people drink to enjoy a "high" feeling, or to overcome a "low" feeling. They also drink to relax and promote sleep, to relieve social or physical discomforts, to quench thirst, to sharpen appetite, to make a gathering more enjoyable, or as part of a social or religious ritual. Other reasons include curiosity, boredom, and going along with a group in which alcohol is frequently used.

Many people, however, drink to dull their feelings, to blot out their worries, to escape from personal responsibility, or to gain courage.

Many young people use alcohol to imitate their parents, other adults, or some of their friends—perhaps in an attempt to seem more sophisticated.

People are influenced to drink more or drink less by those around them. There is a direct relationship between overall level of consumption in the whole population and the number of alcohol-dependent people. That is, a nation with a low per capita consumption of alcohol has a low incidence of heavy users, while a nation where alcohol is used widely and

in which per capita consumption is high has a proportionately higher rate of alcohol-related disease and death.

According to the latest figures released by Statistics Canada, dollar sales of all alcoholic beverages increased 17.6% in the fiscal year 1975-76 compared to fiscal 1974-75. Consumption of wine by volume increased the most compared to the previous year, jumping by 7.2% compared to a 3.1% increase for spirits and 2.7% increase for beer.

Since 1970, alcohol consumption (gallons of absolute alcohol) has increased by 48% in Canada.

DRINKING AND DRIVING

Many traffic accidents are related to drinking. A blood alcohol level of 0.05% produces driving impairment in most people; driving with a level of 0.08% or greater is an offense under the federal Criminal Code. It is also illegal for a driver to refuse to take a Breathalyzer test, or drive while impaired, even if his or her blood alcohol level is lower than 0.08%. A 154 lb (70 kg) man's blood alcohol level will reach 0.05% by his taking two ordinary sized drinks over a short period of time. In a woman of 120 lb (54 kg), one and a half drinks will do the same. The less experience a person has had with either drinking or driving, the less alcohol it takes to impair driving performance. High blood alcohol levels also have been found in many pedestrians hit by cars.

ALCOHOL AND THE LAW

Alcohol legislation is a joint responsibility of the federal and provincial governments. Many laws regulate the manufacture, distribution, possession, and consumption of alcohol.

In Ontario, it is an offense under Section 45 of the Liquor Licence Act for a person to "knowingly sell or supply liquor to a person under the age of 18 years." It is also an offense for a person under the age of 18 years to "have, consume, attempt to purchase, purchase, or otherwise obtain liquor. . . . This section of the act does not apply to the supplying of liquor to a person under the age of 18 years by the parent or guardian of such person in a residence. . . ."



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